

Date: Tue, 9 Aug 94 04:30:29 PDT  
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>  
Errors-To: Ham-Space-Errors@UCSD.Edu  
Reply-To: Ham-Space@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Space Digest V94 #219  
To: Ham-Space

Ham-Space Digest                      Tue, 9 Aug 94                      Volume 94 : Issue 219

Today's Topics:

                    2 meter CW uplink  
                    DSP40 (2 msgs)  
                    DSP Radio Shack (2 msgs)  
            GPS base stations in Scranton PA area? (3 msgs)  
                    manual needed for ICOM IC-28H  
                    Question on AO-21  
                    satellites  
                    Sat Tracking

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>  
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----

Date: 8 Aug 1994 19:18:52 GMT  
From: hatch.sonalysts.com!gerheim@uunet.uu.net  
Subject: 2 meter CW uplink  
To: ham-space@ucsd.edu

Some authors have recommended using an FM HT for a CW uplink on 2 meters.  
the problem with this is that many HT's take about 200 msec. to generate  
a carrier from the time they are keyed on. This makes the CW unintelligible.  
I also own a 20 watt amp for the HT, and would like to know if there's a way  
to key the amp, or even key the RF going \*to\* the amp. I feel I'm within  
a few \$ of a decent 2 meter uplink, but can't get the pieces together.

The AMSAT answer would be to just buy an all-mode XCVR. Why spend \$200 on a hobby  
when you can just as easily spend \$5000!? ;-)

73 - AL , N4QN

--

```
*****
Al Gerheim                               Sonalysts, Inc.
Email: gerheim@sonalysts.com             215 Parkway North
Work: (203)442-4355                      Waterford CT 06385
*****
```

-----

Date: 8 Aug 1994 18:51:27 GMT  
From: iphase.com!wes@uunet.uu.net  
Subject: DSP40  
To: ham-space@ucsd.edu

They use a CODEC chip to do the A/D. I found that the box is easily over driven. This of course causes distortion. The removal of heterodynes works great. Infact if you try listening to a cw signal in the ssb mode you will find it will get chopped up or removed depending on strength of signal. Two things that bother me is the use of a mono head phone jack and the large difference in the audio level between phones and speaker. The headphone output was not design for the phones of the day.

Wes

WA5TKU

-----

Date: Mon, 08 Aug 94 09:13:16 PDT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!agate!howland.reston.ans.net!gatech!asuvax!chnews!news@network.ucsd.edu  
Subject: DSP40  
To: ham-space@ucsd.edu

In article <940808092728@ken\_durham.sc.ti.com>, <ken@fstop.csc.ti.com> writes:

> I tried out the Radio Shack DSP40 on A0-10 and A0-13 over the weekend. It  
> would make a good addition to an older receiver for adding bandpass  
> filtering.  
> There was no noticeable distortion, delay, or noise reduction. There may  
> have been some rejection of heterodynes, but I couldn't detect it. The unit  
> works fine as a steep skirted filter with very little ringing.  
>  
> This is a step in the right direction (low cost), but the next model may be  
> A LITTLE more useful.  
>

> THESE OPINIONS EXPRESSED BY ME ARE MINE ONLY AND DO NOT REFLECT  
> THOSE OF MY EMPLOYER.

>

> oh well . . . K5MBV

> .....

>

What is the A/D conversion, 8 or 16 bit?

Tom WB7ASR...

-----

Date: 8 Aug 94 16:40:00 GMT

From: news-mail-gateway@ucsd.edu

Subject: DSP Radio Shack

To: ham-space@ucsd.edu

>Ken Durham (ken@fstop.csc.ti.com) wrote:

>: Radio Shack has a DSP box called DSP40 that is intended for SSB and CW  
noise

>: and hetrodyne reduction. It has a 5W amp and speaker built in, a 3  
position

>: switch for bandwidth, and another for mode. The price is \$79.95 and they

>: had one in stock at the store I tried. I bought one and will try it out

>: on AO-10 and AO-13 this weekend. WATCH HERE FOR THE PRAISE OR SCORN

>: MESSAGE MONDAY.

Then Paul Wrote:

>

>Sheeze Ken... where have you been? I've been LOVING my DSP40 from the  
>moment I got it, about 3 months ago.

>

>BTW... there are not too many hetrodynes or AM carriers on the

>satelites, I doubt you'll be impressed with its automatic notch filter,

>which is its greatest feature. Try it on 40 meters some evening.

>

>73 =paul= wb8zjl

I purchased a DSP-40 for about 3 months too. The only disappointment is  
the fact that it has no real noise filter in it. I think it states  
that it has a 20db noise reduction. BULL!!! It has NO noise filter!

I have discussed this with the RS guys. They state that the 20db "noise  
reduction" is the average noise reduction over the audio spectrum if you  
take into account the frequencies outside of the filter's bandpass. In  
that case you can get that from a 7 element Chebyshev!! I was told that  
there have been numerous complaints on this problem, in future versions  
they will "reword" the specifications. Other than that, it is worth the  
\$80.

Kevin

Legal stuff:

The above opinions are my own and not necessarily those of the staff, faculty, administration, or lab animals (woof!) of The University of Texas Health Science Center at San Antonio or anyone else who is not me.

-----  
Kevin R. Muenzler, WB5RUE  
muenzlerk@uthscsa.edu

The University of Texas Health  
Science Center at San Antonio,  
Department of Computing Resources

\*\*\*\* There is no such thing as a Monkey-Proof Program! \*\*\*\*  
\*\*\*\* I can prove it! \*\*\*\*  
-----

-----  
Date: 9 Aug 1994 03:12:50 -0700  
From: network.ucsd.edu!not-for-mail@network.ucsd.edu  
Subject: DSP Radio Shack  
To: ham-space@ucsd.edu

In article <2E466083@msmail.uthscsa.edu> MUENZLERK@uthscsa.EDU (Muenzler, Kevin) writes:

>  
>>Ken Durham (ken@fstop.csc.ti.com) wrote:  
>the fact that it has no real noise filter in it. I think it states  
>that it has a 20db noise reduction. BULL!!! It has NO noise filter!

If you are looking for a digital filter that actually reduces broadband noise, I would highly recommend the JPS NRU-500. The advertised reduction is 20 db, which is measurable, and there is a very good vox circuit which does a job at distinguishing between noise and voice. The heterodyne reduction is also good. There are plenty of outputs on the back for audio equipment, tape recorders, etc., including VOX relay outputs.

Brent Jones  
Amundsen-Scott South Pole Station  
90 Degrees South Latitude  
Antarctica  
-----

Date: 8 Aug 1994 11:58:17 GMT  
From: ankh.iaa.org!worstb@uunet.uu.net  
Subject: GPS base stations in Scranton PA area?  
To: ham-space@ucsd.edu

Carl Oppedahl (oppedahl@panix.com) wrote:  
: In <oiEbZxa00WB6BAu24y@andrew.cmu.edu> Ergin Guney <eg23+@andrew.cmu.edu>  
writes:

: Well, actually about 24 satellites, but your general point is correct.

Acutually, at the current time there are 25.

-----

Date: Mon, 8 Aug 94 15:39:10 PDT  
From: sid.sigg.com!news@uunet.uu.net  
Subject: GPS base stations in Scranton PA area?  
To: ham-space@ucsd.edu

I believe that there are currently 25 GPS satellites currently at an altitude of 12,539 miles. Depending on the configuration and competition of the GPS network the accuracy of any given location may vary.

Hope this helps.

Path: sid.sigg.com!uunet!europa.eng.gtefsd.com!MathWorks.Com!news.duke.edu!  
godot.cc.duq.edu!nntp.club.cc.cmu.edu!cantaloupe.srv.cs.cmu.edu!  
bb3.andrew.cmu.edu!andrew.cmu.edu!eg23+  
From: Ergin Guney <eg23+@andrew.cmu.edu>  
Newsgroups: rec.radio.amateur.space,sci.geo.satellite-nav  
Subject: Re: GPS base stations in Scranton PA area?  
Date: Fri, 5 Aug 1994 13:40:13 -0400  
Organization: Masters student, Industrial Administration, Carnegie Mellon,  
Pittsburgh, PA  
Lines: 27  
Message-ID: <oiEbZxa00WB6BAu24y@andrew.cmu.edu>  
NNTP-Posting-Host: po2.andrew.cmu.edu  
In-Reply-To: <george-0408941738190001@192.133.63.110>  
Xref: sid.sigg.com rec.radio.amateur.space:145 sci.geo.satellite-nav:305

Excerpts from netnews.rec.radio.amateur.space: 4-Aug-94 GPS base  
stations in Scrant.. by George Brown@partech.com  
> Is anyone aware of any GPS base stations in the Scranton PA area? We have

> some survey work and are contemplating using a GPS receiver (need  
> differential for better accuracy) to support the effort. We would like to  
> know if there is a base station near, accuracy, cost of access, etc. Or  
> is there another alternative that would give 1-2m accuracy in real-time?  
> Any help would be appreciated.

Either you have been misinformed, or I am missing something big. I pretty well know that GPS signals aren't transmitted by any "base stations" on land. They come from 12 or so satellites that are circling the earth on low polar orbits. The receiver works by receiving the signals from any three of these satellites at a given moment (which is guaranteed on any point on the earth, due to the orbital configuration of the satellites). Therefore, you don't have to worry about access to GPS signals no matter where you are; New York City or Tibet doesn't make any difference.

Unless you're talking about some other GPS ("General Pinpointing Service"? :) ) or a special land-based factor about GPS signals that I wasn't aware of (like what you mean by "differential"), I am pretty sure that what I have explained here is accurate.

Ergin Guney

-----  
Date: Tue, 9 Aug 1994 09:05:22 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!pipex!uknet!festival!nkw-uy!  
pcmail.nerc-bas.ac.uk!eckie@network.ucsd.edu  
Subject: GPS base stations in Scranton PA area?  
To: ham-space@ucsd.edu

In article <oiEbZxa00WB6BAu24y@andrew.cmu.edu> Ergin Guney <eg23+@andrew.cmu.edu> writes:

>From: Ergin Guney <eg23+@andrew.cmu.edu>  
>Subject: Re: GPS base stations in Scranton PA area?  
>Date: Fri, 5 Aug 1994 13:40:13 -0400

\*\*snip\*\*

>Either you have been misinformed, or I am missing something big.

  \*\*snip\*\*or a  
>special land-based factor about GPS signals that I>wasn't aware of (like what  
>you mean by "differential"),\*\*snip\*\*

>Ergin Guney

Mr Guney, you are missing one of the biggest things about GPS if you have not yet stumbled on differential.

There are several ways of performing differential GPS surveying. The one Mr Brown was referring to involves a receiver at a known point. This computes the difference between the measured satellite ranges and the ranges expected. It can then output these differences in a format called RTCM-102. The corrections are sent to a roving unit by radio or satcom and the corrections applied. This technique overcomes SA and a number of the other error factors in GPS positioning and can therefore deliver accuracies of 1-5m depending on the sophistication of the receivers being used. There are some commercial companies operating differential base stations but one of the biggest such operations is the chain of stations being operated by the US Coast Guard - for details contact the GPS Information Centre - address posted to this newsgroup recently.

Ed King  
British Antarctic Survey

-----  
Date: Mon, 8 Aug 94 11:00:57 GMT  
From: paperboy.ids.net!usenet@uunet.uu.net  
Subject: manual needed for ICOM IC-28H  
To: ham-space@ucsd.edu

Does anybody have a manual for an ICOM IC-28H?

I just got one at the Jacksonville Hamfest, and need to learn how to set it up for the SAREX frequencies.

Alternately - does anybody have a phone number for ICOM?

Philip Chien KC4YER  
no sig yet

-----  
Date: Mon, 08 Aug 94 09:16:15 PDT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!usc!howland.reston.ans.net!gatech!asuvax!chnews!news@network.ucsd.edu  
Subject: Question on A0-21  
To: ham-space@ucsd.edu

In article <1994Aug8.013435.21380@auc.trw.com>, <etuggle@auc.trw.com> writes:  
>

> Does anyone have any experience working A0-21 with a vertical? If so  
> how much power should I expect it to take? Anyone using the dual band  
> J-Pole from the ARRL handbook inside an attic?  
>

You most likley will never be able to work through A0-21 with 20 watts and a vertical/J-pole. You will need at least 100+ watts into a 40+ ele yagi. The only reason you need this type of station is because that is what others are using. Those stations will caputre the birds input, thus you will never be heard. Its a shame, because 20 watts with a vertical is really all you need.

Tom WB7ASR...

-----  
Date: 8 Aug 1994 14:52:07 GMT  
From: hatch.sonalysts.com!cflarkie@uunet.uu.net  
Subject: satellites  
To: ham-space@ucsd.edu

If at all possible I was wondering whether there was a means of obtaining \*the location and imagery of any weather satellites that are still operational The group that I am workig with will need the following information on imagery from geostationary weather satellites:

1. Focal length of cameras (in pixels)
2. Aiming data for the cameras
3. Preprocessing of images
4. Scheduling of image transmissions

Any information pertaining to the preeceeding will be greatly appreciated. Feel free to offer up any advise for other sources for this information.

cflarkie@Sonalysts.com.

\*\*\*\*\*  
Charles Larkie  
Sonalysts, Inc.



Email: cflarkie@sonalysts.com  
Work: (203)442-4355

215 Parkway North  
Waterford CT 06385

\*\*\*\*\*

-----

Date: 3 Aug 94 06:39:50 GMT  
From: mvb.saic.com!news.alpha.net!pacifier!rainrgnews0!psgrain!  
charnel.ecst.csuchico.edu!nic-nac.CSU.net!usc!howland.reston.ans.net!EU.net!  
Germany.EU.net!netmbx.de!zib-berlin.de!@ihnp4.ucsd.edu  
Subject: Sat Tracking  
To: ham-space@ucsd.edu

Hello everybody,

an improved version of our tracking program is available now by  
anonymous ftp to:

igel.physik.th-zwickau.de

The filename refers to the date of compilation.

Karsten - DL3HRT.

-----  
Karsten Hansky (DL3HRT)  
e-mail: hansky@igel.physik.th-zwickau.de  
AX25 : DL3HRT@DB0LPZ.#SAX.DEU.EU  
Phone : +49 0375 536 1429  
-----

-----

End of Ham-Space Digest V94 #219

\*\*\*\*\*